COMBINED DECLARATION AND POWER OF ATTORNEY

| As a below na | med inventor, I hereby declare that: |
|---------------------------------------|---|
| This declaration | n is of the following type: |
| | original divisional continuation continuation-in-part |
| | INVENTORSHIP IDENTIFICATION |
| the original, firs | post office address and citizenship are as stated below next to my name. I believe I am it and sole inventor (if only one name is listed below) or an original, first and joint inventor is are listed below) of the subject matter which is claimed and for which a patent is sought in entitled: |
| APPARA | TUS FOR CONTROLLING GAS FLOW IN A SEMICONDUCTOR SUBSTRATE PROCESSING CHAMBER |
| | SPECIFICATION IDENTIFICATION |
| The specification | on of which: |
| | is attached hereto was filed on, under Serial No, executed on even date herewith; or Express Mail No.(as Serial No. not yet known) and was amended on (if applicable) was described and claimed in PCT International Application No filed on and as amended under PCT Article 19 or |
| , | ACKNOWLEDGMENT OF REVIEW OF PAPERS AND DUTY OF CANDOR |
| | that I have reviewed and understand the contents of the above-identified specification aims, as amended by any amendment referred to above. |
| Title 37, Code on namely, information | the duty to disclose all information I know to be material to patentability in accordance with of Federal Regulations, §1.56, and which is material to the examination of this application ation where there is a substantial likelihood that a reasonable Examiner would consider is ciding whether to allow the application to issue as a patent, and |
| | In compliance with this duty there is attached an Information Disclosure Statement in accordance with 37 CFR §1.98. |

PRIORITY CLAIM (35 U.S.C. §119)

I hereby claim foreign priority benefits under Title 35, United States Code, §119, of any provisional or foreign application(s) for patent or inventor's certificate or of any PCT international application(s) designating at least one country other than the United States of America listed below, and have also identified below any provisional or foreign application(s) for patent or inventor's certificate or any PCT international application(s) designating at least one country other than the United States of America filed by me on the same subject matter having a filing date before that of the application(s) of which priority is claimed.

| | \boxtimes | No such | applications have be | en filed. | | |
|--|---|--|---|---|---|---|
| | | Such ap | plications have been | filed as follows: | | |
| A. | | | | iled within 12 mos. (under 35 U.S.C. §119 | 6 mos. for design) | prior to this |
| | Coun | try/PCT | Application No | Date Filed | Priority C | Claimed |
| | | | | | ☐ Yes ☐ Yes ☐ Yes | ☐ No ☐ No ☐ No |
| В. | | eign appl oplicatior | | ed more than 12 mos. | (6 mos for design) p | rior to this |
| | Countr Applica Filing o | ation No: | | | | |
| C. U.S. Provisional Application filed within 12 months prior to this application | | | | | | |
| | <u>Serial</u> | No. | | Filing Date | | |
| | | | PRIORITY | CLAIM (35 U.S.C. §12 | 0) | |
| PCT in insofar applica acknow (namely importal) | iternation as the tion(s) in the tion (s) in the tipe to the tipe | nal applices of the main the main the duty mation wheeling wheelin | eation(s) designating latter of each of the inner provided by the do disclose informationer there is substantiation to allow the approximation of the substantial of | ed States Code, §120, of the United States of A claims of this application e first paragraph of Tite on that is material to tial likelihood that a rea application to issue as a pational or PCT internation | merica that is/are lise is not disclosed in the 35, United States the examination of sonable Examiner we patent) which occurred | sted below and that/those prio Code, §112, this application ould consider i ed between the |
| | | | applications have be plications have been | | | |
| | Serial | No. | Filing Date | Patented | Status | Abandoned |

POWER OF ATTORNEY

I hereby appoint the following attorneys and/or agents to prosecute this application and transact all business in the Patent and Trademark Office connected therewith:

> Donald Verplancken Registration No. 33,217 Peter J. Sgarbossa Registration No. 25,610 Raymond Kam-On Kwong Registration No. 37.165 Joseph Bach Registration No. 37,771 James C. Wilson Registration No. 35,412 Robert W. Mulcahy Registration No. 25,436 B. Todd Patterson Registration No. 37,906 Raymond R. Moser, Jr. Registration No. 34,682 Keith M. Tackett Registration No. 32,008

> Send correspondence to: Direct telephone calls to:

Patent Counsel Applied Materials, Inc.

P.O. Box 450-A

Santa Clara, CA 95052

Raymond R. Moser, Jr.

Moser, Patterson & Sheridan, LLP

(732) 530-9404

DECLARATION

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and, further, that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Sec. 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patents issued thereon.

| Full name of sole or fi r | rst inventor: KALLOL BERA | |
|----------------------------------|--|-------------------------------------|
| nventor's signature: | Kallol Bina | Date: 4/1/04 |
| Residence: | 2100 Fruitdale Avenue, Apt. #6 San Jose, CA 95128 | |
| Post Office Address: | Same as above | |
| | U.S.A. | Country of Citizenship: India |
| Full name of second in | nventor: HEEYEOP CHAE | |
| Inventor's signature: | • | Date: |
| Residence: | 1657 Tawnygate Way | |
| Post Office Address: | San Jose, CA 95124 Same as above | |
| oct office / todalcoo. | U.S.A. | Country of Citizenship: South Korea |

| Full name of third inve | ntor: HAMID IAVASSOLI | | | |
|--------------------------------------|-------------------------------------|--|--|--|
| Inventor's signature: | Hamid Taisas | Date: HIII OH | | |
| Residence: | 907 Burbank Drive | 19061 Tilson Avenue | | |
| Post Office Address: | Santa-Clara, CA 95051 Same as above | 19061 Tilson Avenue Capertino CA95014 | | |
| Tost Office Address. | U.S.A. | Country of Citizenship: U.S.A. | | |
| Full name of fourth inventor: YAN YE | | | | |
| Inventor's signature: | 20 | Date: | | |
| Residence: | 13271 Via Arriba Drive | | | |
| | Saratoga, CA 95070 | | | |
| Post Office Address: | Same as above | | | |
| | U.S.A. | Country of Citizenship: U.S.A. | | |

(DECLARATION ENDS WITH THIS PAGE)

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| The specificati | on of which: |
| | is attached hereto was filed on, under Serial No, executed on even date herewith; or Express Mail No.(as Serial No. not yet known) and was amended on(if applicable) was described and claimed in PCT International Application No filed on and as amended under PCT Article 19 on |
| | ACKNOWLEDGMENT OF REVIEW OF PAPERS AND DUTY OF CANDOR |
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| namely, inform | the duty to disclose all information I know to be material to patentability in accordance with of Federal Regulations, §1.56, and which is material to the examination of this application; ation where there is a substantial likelihood that a reasonable Examiner would consider it ciding whether to allow the application to issue as a patent, and |
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No such applications have been filed.

 \boxtimes

| | ☐ Such ap | plications have been filed | d as follows: | | |
|--|---|--|---|---|--|
| A. | | CT application(s) filed d any priority claims un | | mos. for design | ı) prior to this |
| | Country/PCT | Application No | Date Filed | Priority | Claimed |
| | | | | ☐ Yes ☐ Yes ☐ Yes | ☐ No ☐ No ☐ No |
| В. | All foreign appl U.S. application | ication(s), if any, filed n | nore than 12 mos. (6 | mos for design) į | prior to this |
| | Country: Application No: Filing date: | | | | |
| C. | U.S. Provisiona | l Application filed withi | n 12 months prior to | this application | |
| | Serial No. | | Filing Date | | |
| | | | | | |
| | | PRIORITY CL. | AIM (35 U.S.C. §120) | | |
| PCT in nsofar applica acknow (namely mporta | ternational application as the subject mation(s) in the mailedge the duty to information whent in deciding whent in the | t under Title 35, United Sation(s) designating the atter of each of the clair nner provided by the firm of disclose information there there is substantial lifether to allow the application(s) and the nation | United States of Ame ns of this application is st paragraph of Title that is material to the ikelihood that a reasor ation to issue as a pat | erica that is/are lists not disclosed in 35, United States examination of the examiner whent) which occurring | sted below and, that/those prior s Code, §112, I this application yould consider it red between the |
| | | applications have been folications have been filed | | | |
| | Oddii api | Silications have been filed | i, as ionows. | Status | |
| | Serial No. | iling Date | Patented | | Abandoned |

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Full name of sole or first inventor: KALLOL BERA Inventor's signature: Date: 2100 Fruitdale Avenue, Apt. #6 Residence: San Jose, CA 95128 Post Office Address: Same as above U.S.A. Country of Citizenship: India Full name of second inventor: HEEYEOP CHAE Date: Inventor's signature: Residence: San Jose, CA 95124 Post Office Address: Same as above U.S.A. Country of Citizenship: South Korea

| T dil fiame of tima my | entor. HAMID TAVASSOLI | | |
|-------------------------------|--|--------------------------------|--|
| Inventor's signature: | | Date: | |
| Residence: | 907 Burbank Drive Santa Clara, CA 95051 | | |
| Post Office Address: | Same as above | | |
| | U.S.A. | Country of Citizenship: U.S.A. | |
| Full name of fourth in | ventor: YAN YE | | |
| Inventor's signature: | | Date: | |
| Residence: | 13271 Via Arriba Drive Saratoga, CA 95070 | | |
| Post Office Address: | Same as above | Country of Citizenship: U.S.A. | |

(DECLARATION ENDS WITH THIS PAGE)